momentum™

HDP150
DMR Portable Radio

Quick Guide
14222-1150-1000, Nov/11

HARRIS®

DMR
DIGITAL MOBILE RADIO ASSOCIATION

SYMBOLS USED IN THIS GUIDE

The following table lists symbols used in this guide. These symbols do not appear in the radio's display.

SYMBOL	DESCRIPTION
	The **DIGITAL CHANNEL** symbol indicates the particular feature or function is available on digital channels only.
	The **ANALOG CHANNEL** symbol indicates the particular feature or function is available on analog channels only.
	The **NOTE** symbol calls attention to supplemental information, which may improve system performance or clarify a process or procedure. It may also be used to add tips that can help you make better use of the radio.

If no digital channel or analog channel symbol appears, the function/feature is applies to both analog channels and digital channels.

NOTICE!

For detailed operating information and a list of options and accessories available for the HDP150 portable radio, refer to *Operator's Manual* publication number 14222-1150-2000. This and other related publications are also available online at www.pspc.harris.com.

Also refer to the *Operator's Manual* for important safety-related information!

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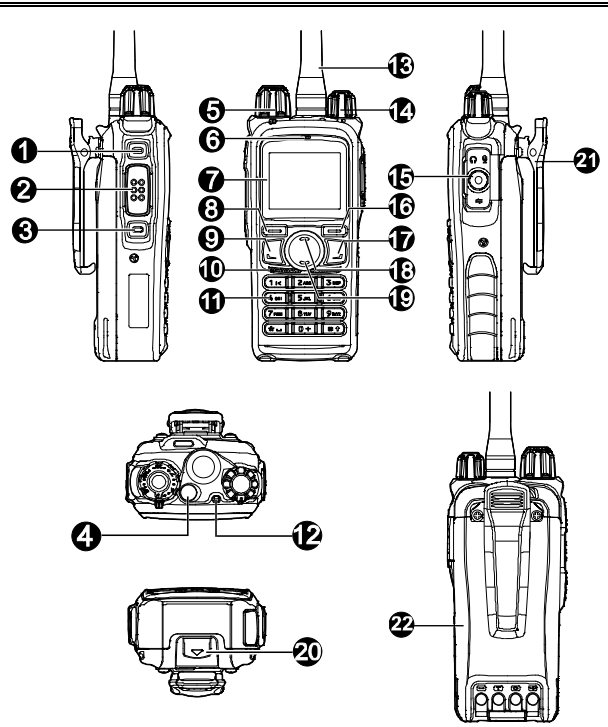
RADIO OVERVIEW

RADIO CONTROLS, INDICATORS, AND OTHER ITEMS

ITEM	NAME
1	Side Key 1 (SK1)
2	PTT Key
3	Side Key 2 (SK2)
4	Top Key (TK)
5	Channel Selector Knob
6	Microphone
7	Liquid Crystal Display (LCD)
8	Select/Menu Key
9	Programmable Key (Left)
10	Speaker
11	Keypad



ITEM	NAME
12	LED Indicator
13	Antenna
14	On/Off/Volume Control Knob
15	Accessory Jack
16	Back Key
17	Programmable Key (Right)
18	Up Key
19	Down Key
20	Battery Latch
21	Belt Clip
22	Battery

PROGRAMMABLE SHORTCUT KEYS

For enhanced convenience, you may request your dealer pre-program keys SK1, SK2, TK, and as shortcuts to any of the functions listed in this table:

NO.	SHORTCUT NAME	SHORTCUT KEY FUNCTION
1	Zone Up	Change to another zone. See page 8.
2	Zone Down	
3	Keypad Lock	Lock or unlock the keypad. See page 9.
4	Contact List	Quick access to the Contact list.
5	Message	Quick access to Message menu.
6	Call Logs	Quick access to Call Logs menu.
7	Adjust Power Level	Quickly change the radio's transmitting power level.
8	Talk-Around	Directly communicate with other radios. See page 13.
9	Monitor	Toggle receiver muting on and off. See page 14.
10	Monitor Momentary	Momentarily turn receiver muting off. See page 14.
11	Squelch Off	Toggle squelch on and off. When off, the radio always unmutes so if no radio carrier is present on the channel, receiver noise is heard. See page 14.
12	Squelch Off Momentary	Momentarily turn squelch off. Otherwise, same as above. See page 14.
13	Home Screen	Quickly return to the previous menu or home screen. See page 10.
14	Scan	Enable and disable scanning.
15	Nuisance Temporary Delete	Temporarily skip unwanted channel activity during scanning.
16	Emergency On	Turn on the emergency mode and transmit emergency call/signaling.
17	Emergency Off	Turn off the emergency call/signaling, exiting emergency mode.

NO.	SHORTCUT NAME	SHORTCUT KEY FUNCTION
18	Lone Worker	Toggle the Lone Worker feature on and off.
18	Adjust Squelch Level	Temporarily adjust the receiver squelch threshold.
19	Battery Strength Indicator	Display remaining battery strength.
20	Man Down *(Optional Feature)*	Activate this emergency feature so if the radio is positioned at an angle for a preset period of time, it will being emergency transmissions.
21	Scrambler / Encrypt	Scrambler: Encrypt voice transmissions for secure communications. Encrypt: Encrypt voice and message transmissions for secure communications.
22	One Touch Call (1 though 5)	Quickly make calls or send messages.
23	Status	Quickly access the Status List menu.
24	Telemetry	To supervise remote devices.
25	DTMF Keypad	To enter or exit DTMF keypad mode. In this mode, phone numbers can be entered via the radio's keypad. Refer to the *Operator's Manual* for additional information.
26	Phone List	To access the Phone List menu quickly. See page 15.
27	Roam	To enable and disable the Roam feature.

NOTE

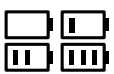
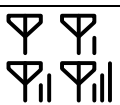
Long and short presses of a key can be programmed with different functions by your dealer.

The Top Key (TK) is programmed as the emergency key by default. It may be reprogrammed by your dealer.

RADIO STATUS INDICATORS

OPERATIONAL MODE AND STATUS ICONS THE DISPLAY

The radio has two (2) operational mode icons and multiple status icons that appear in its display. These icons are illustrated and described in the following table.

ICON NAME	ICON	DESCRIPTION
Direct Mode	DM	This operational mode icon indicates the radio is operating in direct mode. In this mode, radios communicate with each other directly (talk around).
Repeater Mode	RM	This operational mode icon indicates the radio is operating in repeater mode. In this mode, radios communicate with each other via a repeater.
Monitor Icon		The monitor feature is active. See page 14 for additional information.
Speaker Icon		The speaker is unmuted.
Emergency Icon		The Emergency mode (other than secret emergency) is active or an emergency message has been received.
Battery Strength Icons		These icons indicate the relative strength of the battery. An icon with more bars indicates more remaining battery operating time. No bars and beeps indicates the battery needs charging immediately.
Accessory Icon		This icon appears in the display when an accessory is connected to the radio's accessory connector.
RSSI Icons		This RSSI icon indicates no radio signal is being received. RSSI icons appear in the upper left corner of the display.
		More bars on an RSSI icon indicate better signal strength.

ICON NAME	ICON	DESCRIPTION
Transmit (Tx) Power Level Icons		Low transmit power for the selected channel.
		High transmit power for the selected channel.
Message Icons		New message/unread message.
		InBox is full.
Scan Icons		Scanning.
		Scanning is paused on a non-priority channel.
		Scanning is paused on the priority 1 channel.
		Scanning is paused on the priority 2 channel.
GPS Icons		The GPS feature is active and valid GPS data is being received.
		The GPS feature is active but no valid GPS data is being received.
Scrambler/Encrypt Icon		The Scrambler/Encrypt feature is enabled/active.
Missed Call Icon		A call has been missed.
DTMF Keypad Icon		Dual-Tone Multi-Frequency (DTMF) keypad entry mode is enabled/on, so numbers can be entered via the radio's keypad.
Roam Icon		The radio is roaming.

LED INDICATOR

A light-emitting diode (LED) type status indicator is located on the top of the radio, near the On/Off/Volume Control Knob. This indicator can be quickly viewed to determine the basic operational status of the radio. Each status indication is described in the table at the right.

LED INDICATOR	RADIO STATUS
Flashing Green	Powering on
Glowing Red	Transmitting
Glowing Green	Receiving
Flashing Orange Slowly (approximately once every 2 sec.)	Scanning
Flashing Orange Rapidly (approximately twice every 1 sec.)	Emergency
Glowing Orange	OK to transmit voice audio by pressing the PTT key and speaking into the microphone.

TURNING THE RADIO ON AND OFF

To turn on the radio, rotate its **On/Off Volume Control** knob clockwise out of the detent position. A click will be sensed. The radio responds by displaying its power-up screen and its LED status indicator flashes green. This knob is item 14 on page 3.

To turn the radio off, rotate this knob fully counter-clockwise until the detent click is sensed.

ADJUSTING THE VOLUME

After turning the radio on, rotate the **On/Off Volume Control** knob clockwise to increase the volume and rotate it counter-clockwise to decrease the volume. Volume adjustment can be made at anytime later in the same manner. This knob is item 14 on page 3.

SELECTING A ZONE

A zone is a group of pre-programmed radio channels exhibiting similar properties. The radio supports up to sixty-four (64) zones and each zone can have up to sixteen (16) channels. Zones and channels are pre-programmed into the radio by your dealer. Select a zone using either of the following methods:

- Menu Selection Method — From the home screen, press the **Menu** key, select **Zone**, then use the **Up/Down** key to select the desired zone from the menu.

- Pre-Programmed Shortcut Keys Method — If pre-programmed by your dealer, quickly switch to a desired zone by pressing the programmed **Zone Up** or **Zone Down** shortcut key. Keys SK1, SK2, TK, ⌙ or ⌟ may be pre-programmed by your dealer as Zone Up and Zone Down shortcut keys. The SK1, SK2, TK, ⌙ or ⌟ are illustrated on page 3.

SELECTING A CHANNEL

The radio's **Channel Selector** knob is located on the top of the radio. It is item 5 on page 3. Rotate this knob to select the desired channel within the zone. The name of the selected channel appears in the display.

This knob has sixteen (16) positions, for a total of sixteen channels per zone. Some knob positions may not be programmed with a channel.

The number of the newly selected channel will be announced from the radio's speaker in a synthesized voice if the radio's Channel Notify feature is enabled. If desired, enable or disable this feature from the Channel Notify menu as follows: Menu > Settings > Radio Set > Tone > Channel Notify > Enable or Disable.

SWITCHING THE CHANNEL MODE BETWEEN ANALOG AND DIGITAL

Each channel can be pre-programmed as either an analog channel or a digital channel. If the currently selected zone includes both analog and digital channels, the **Channel Selector** knob can be used to quickly switch between analog and digital channels. Select the desired channel by rotating the knob to the respective position.

LOCKING AND UNLOCKING THE KEYPAD

The radio's keypad can be locked to prevent unintentional key activations. Lock and unlock the keypad using one of the following methods:

- Press the **Select/Menu** and * ⌙ keys simultaneously. Each press toggles between locked and unlocked.
- If programmed, press the key **Keypad Lock** shortcut key. Each press toggles between locked and unlocked. See page 4 for additional information on programmable keys.
- From the Keypad Lock menu as follows: Setting > Radio Settings > Keypad Lock > Enable or Disable. If enabled, the keypad will lock automatically within the preset time period if no operation is made. If disabled, the keypad will not lock automatically. However, it can be manually locked or unlocked via the **Select/Menu** and * ⌙ keys, or if pre-programmed, via the **Keypad Lock** shortcut key.

NOTE

When the Keypad Auto Lock feature is enabled, the keypad will automatically lock if no operation is made within the pre-programmed time period. The Keypad Auto Lock feature can be disabled via the Keypad Lock menu.

HOME SCREEN

The home screen is the default operating screen. It indicates the name of the selected zone, the name of the selected channel, battery strength, and other parameters of the selected channel (via icons) such as if the channel is a repeater vs. a direct mode channel, the current transmit power level, receive signal strength, etc.

To return to the home screen from any menu screen, simply press the **Back** key one or more times. Alternately, if the **Home Screen** shortcut key is pre-programmed, press it to exit the menu screen and immediately return to the home screen. In an editing screen, press the **Home Screen** shortcut key to exit and immediately return to the previously selected menu.

PRIVATE CALLS

A private call is a call initiated by a radio user to another radio user.

Transmitting a Private Call

When transmitting a private call, the icon appears in the display. A private call can be transmitted using a method described in the following subsections.

NOTE

Whenever transmitting (i.e. **PTT** button depressed), hold the front of the radio between 1 to 2 inches from your month and speak into the microphone at a normal voice level. This will ensure optimal reception at the receiving radio unit(s). Never shout or whisper when transmitting. As illustrated on page 3, the radio's microphone is located just above the display.

Transmitting a Private Call to the Preset Contact

While in the home screen, hold down the radio's **PTT** key to transmit a private call to the Private Call contact preset for the currently selected channel. Release the **PTT** key to stop transmitting, and listen for a reply. See *Receiving and Responding to a Private Call* for additional information.

NOTE

Each digital channel may be pre-programmed with a preset contact by your dealer. The preset contact can be a Private Call contact, a Group Call contact, or an All Call contact.

Transmitting a Private Call via the Contact List or Call Logs

1. While in the home screen, press the **Menu** key.
2. Select Contact > Contact List. Alternately, go to Call Logs and access the Outgoing/Incoming/Missed list.
3. Press the **Up/Down** key to select the Private Call contact desired for calling. In this list, each Private Call contact name is preceded by a icon.
4. Hold down the **PTT** key to transmit a private call to the selected contact, and speak into the microphone at a normal voice level.
5. Release the **PTT** key to stop transmitting, and listen for a reply. See *Receiving and Responding to a Private Call* for additional information.

Transmitting a Private Call via Manual Input

1. While in the home screen, press the **Menu** key.
2. Select Contact > Manual Dial.
3. Enter the Private Call contact desired for calling.
4. Hold down the **PTT** key to transmit the private call, and speak into the microphone at a normal voice level.
5. Release the **PTT** key to stop transmitting, and listen for a reply.

NOTE

If the radio is programmed for Private Call Manual Dial and Group Call Manual Dial, switch between these by pressing the # key. The appropriate ID is displayed.

NOTE

If the radio is programmed with the Default Numeric Key Selection enabled, you can enter a Private Call number in the home screen using the keypad, and then hold down the **PTT** key to transmit the Private Call. However, if the DTMF keypad is enabled, the number entered in the home screen is a phone number. You can dial the Private Call number through the Manual Dial menu only.

Receiving and Responding to a Private Call

When a private call is received, the icon appears in the radio's display. To respond to the call, hold down the **PTT** key within the preset time period, and speak into the microphone at a normal voice level.

If you do not respond to a received private call, the missed call icon appears at the top of the display. In addition, if the radio is programmed with Display Missed Call enabled, the large icon also displays.

GROUP CALLS

A group call is a call initiated by a radio user to a group of radio users.

Transmitting a Group Call

When transmitting a group call, the icon appears in the display. Basic operating procedures for making group call are similar to those previously described for making private calls. A group call can be transmitted using any of these methods:

- To the Preset Contact
- Via the Contact List
- Using Manual Input with the Radio's Keypad

NOTE

If the radio is programmed with the Default Numeric Key Selection enabled, you can enter a Group Call number in the home screen using the keypad, and then hold down the **PTT** key to transmit the Group Call. However, if the DTMF keypad is enabled, the number entered in the home screen is a phone number. You can dial the Group Call number through the Manual Dial menu only.

Receiving and Responding to a Group Call

When a group call is received, the icon appears in the radio's display. To respond to the call, hold down the **PTT** key within the preset time period, and speak into the microphone at a normal voice level.

ALL CALLS

An all call is a call initiated by a radio user to all radio users on the channel.

Transmitting an All Call

All calls can be transmitted to the preset contact or to a contact on the Contact list. Methods for transmitting an all call are the same as those described for *Transmitting a Group Call* on page 12. When transmitting an all call, the icon appears in the display.

NOTE

All calls can only be transmitted if enabled by your dealer via radio pre-programming.

Receiving an All Call

When an all call is received, the icon appears in the display.

NOTE

It is not possible to respond to an all call.

TALK-AROUND (DIRECT MODE)

The talk-around feature provides direct radio-to-radio communications. With talk-around, a radio repeater system is not required for radio communications. This type of operation is sometimes called “direct mode.” Talk-around is beneficial when, for example, a radio repeater system malfunction has occurred, or when the radio is out-of-range of a radio repeater system, but other radios are nearby that can communicate on the same pre-programmed radio channels.

To toggle radio operation between normal communications mode (repeater mode) and talk-around, simple press the pre-configured **Talk-Around** shortcut key. When in talk-around/direct mode, the **DM** icon appears near the upper left corner of the display. When in repeater mode, the **RM** icon appears.

CALLS ON ANALOG CHANNELS

Transmitting a Call on an Analog Channel

1. If not already, select the desired analog channel.

2. Listen for a clear channel. In other words, if another person is using the channel, wait for them to finish transmitting/speaking. If pre-programmed, a monitor or squelch off shortcut key should be used to verify the channel is clear; see the following sections for additional information on these functions.
3. Hold down the radio's **PTT** key and speak into the microphone at a normal voice level.
4. Release the **PTT** key to stop transmitting, and listen for a reply.

Receiving a Call on an Analog Channel

1. If not already, select the desired analog channel. Do **not** press the **PTT** key.
2. When an incoming call is received on the channel, rotate the **On/Off Volume Control** knob as necessary to adjust the volume.

   If pre-programmed, a monitor or squelch off shortcut key can be used to verify there is no signal on the channel. Also, the Squelch Off shortcut key can be used in weak signal conditions.

Monitor

Monitor is a function for analog channels that allows any pre-programmed receiver decoding to be disabled so calls (or other activity) on the selected channel without the correct code can be monitored.

This does not disable receiver squelch. When the Monitor function is enabled, the icon appears in the top of the display, and any calls on the channel will be heard in the radio's speaker.

To enable and disable the Monitor function, press the pre-programmed **Monitor** shortcut key, or the **Monitor Momentary** shortcut key. The **Monitor** shortcut key provides a toggle on/off type function, whereas the **Monitor Momentary** shortcut key temporarily enables the function only while the shortcut key is depressed.

Squelch Off

Squelch Off is an analog channel function that, when enabled, keeps the receiver unsquelched (i.e., not muted) even when there is no signal on the selected channel. When enabled, the icon appears in the top of the display and call audio on the channel (or receiver noise) is routed to the radio's speaker.

To toggle squelch between enabled and disabled, press the pre-configured **Squelch Off** shortcut key.

To momentarily turn squelch off, depress the pre-configured **Squelch Off Momentary** key. When this key is released, squelch turns back on.

Telephone Interconnect Calls

If an analog channel's repeater site equipment is connected to a Public Switched Telephone Network (PSTN) gateway system, the radio can make a phone call through this channel and phone system.

Transmitting a Phone Call

1. Select an analog channel that has a PSTN connection. Consult with your radio dealer as necessary.
2. Access the phone system using either a Live Dial method or Buffer Dial method as follows:
   - Live Dial — Hold down the **PTT** key, enter the access code via the radio's keypad and release the **PTT** key. The radio beeps and displays the dialing information. When the phone system is accessed successfully, the radio automatically goes to the DTMF keypad mode.
   - Buffer Dial — Access the phone system as follows:
     A. Enter the DTMF keypad mode using one of the following methods:
        - From the home screen, press the **Menu** key then select Phone > Manual Dial to enter the DTMF keypad mode.
        - Press the programmed **DTMF Keypad** shortcut key.
        - From the home screen, press the **Menu** key then select Phone > DTMF Keypad > Enable.

     B. Enter the phone system's access code via the radio's keypad and then press the **PTT** key. The radio beeps and displays the dialing information. When the phone system is accessed successfully, the radio goes to the DTMF keypad mode again.
3. Dial the desired phone number using one of the following methods:
   - Live Dial — Hold down the **PTT** key and enter the phone number via the radio's keypad. Release the **PTT** key after the complete phone number has been entered.
   - Buffer Dial — Enter the phone number via the radio's keypad and then hold down the PTT key.
   - Select the **Back** and the **Menu** keys, and then select Phone > Phone List to select a desired contact. Next, press the **PTT** key.
4. After the call is established, hold down the **PTT** key to talk, and release it to listen. To end the call, send the de-access code to exit the phone system; the input method is the same as that for the access code.

If the phone is hung up, the call will end and the phone system will exit.

Receiving a Phone Call

When the radio receives a phone call, the icon or the icon displays. To respond to the call, hold down the microphone's **PTT** key within the preset time period, and speak into the microphone at a normal voice level.

If you do not respond, the radio will provide appropriate indications. If you do not respond to a received phone call, the missed call icon appears at the top of the display. In addition, if the radio is programmed with Display Missed Call enabled, the large icon also displays.

TECHNICAL ASSISTANCE

If a technical problem arises, first refer to the troubleshooting table in the radio's *Operator's Manual* for a possible solution to the problem. If the problem cannot be resolved using that table, contact your radio equipment dealer for assistance. Also contact your radio equipment dealer for specific information about how the radio is programmed.